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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/802,321	03/17/2004	Stefan Bengt Edlund	IBM-014	3735

51835 7590 04/05/2010

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EXAMINER	
TIMBLIN, ROBERT M	
ART UNIT	PAPER NUMBER
2167	

MAIL DATE	DELIVERY MODE
04/05/2010	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/802,321	EDLUND ET AL.	
	Examiner	Art Unit	
	ROBERT TIMBLIN	2167	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *29 January 2010*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-20* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

This Office Action corresponds to application 10/802,321.

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 1/29/2010 has been entered.

Response to Amendment

In the present amendment (dated 1/29/2010) Applicant therein amends claims 1 and 16. No claims have been added or cancelled; accordingly, claims 1-20 are pending.

Specification

The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: Antecedent basis for "a *non-transitory* computer useable medium having embodied therein program code" is not provided. Presently, the instant specification lacks any description of a "non transitory" computer usable medium that embodies program code. No instances of "storage", "disk", "memory" or the like were found in the specification to support the presently claimed non-transitory medium.

35 USC § 101

In light of the present remarks and amendments, the section 101 rejection to claims 16-20 are withdrawn. As presently recited, the claimed computer usable medium is now directed towards only non-transitory embodiments and thus is statutory.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-7, 9, and 11-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent Publication Number 2003/0172113 A1 issued to Brian A. Cameron et al ("Cameron") and US 2004/0230598 issued to Stephen Robertson et al ("Robertson") and US 7,092,977 B2 issued to Albert Leung et al ("Leung").

As per independent claim 1, Cameron teaches synchronizing a client having a client database with a server having a server database and transmitting documents (paragraph 7, lines 4-8, synchronizing documents between server and client);

Initiating a synchronization task at one of the client, … and identifying the server and the server database for synchronization (paragraph 12 and paragraph 42, as during synchronization server or small device (client) notifies the other of changes and update).

Cameron does not explicitly teach calculating for a plurality of times and a plurality of clients a document score for each of a plurality of documents in the server database and documents which, the document score designating an importance of a respective one of the documents to a respective one of the clients at one of the times the document to the client and transmitting one of the documents in the server database to the client based on a respective document score for a latest time.

Robertson does teach these limitations (paragraph 20, new documents which include documents newly received to the document filtering system and/or documents currently in the system which have been modified and paragraph 49 the new documents are scored) and (paragraph 49, lines 16-20 as profile score field which stores the score that indicates how well the terms in the document associated with the profile scoring file match the terms in the user profile and paragraph 20 lines 15-19, sending document to user) to deliver to a user, electronic documents that a user may find relevant. It would have been obvious to a person of ordinary skill in the art at the time of the invention was made to modify Cameron with calculating a document score for each of a plurality of documents in the server database, the document score designating an importance of the document to the client and transmitting one of the documents) to deliver to a user, electronic documents that a user may find relevant as described by Robertson (paragraph 1, lines 14-15).

Cameron and Robertson do not explicitly teach a threshold value that indicates the document score value for a document to be synchronized, each document score indicative of whether the document should be synchronized between the respective client and the server database, and comparison.

Leung does teach a threshold value (col. 9 lines 42-43; e.g. a file size requirement indicating a threshold size and figure 3 as described in col. 11 lines 33-52) that indicates the document score value (col. 9 line 46; e.g. the file has to be at least a certain size as well as col. 10 lines 55-60; e.g. data characteristics information) for a document to be synchronized (col. 9 line 45-46; e.g. the file has to be at least a certain size before it can be stored), each document score (col. 9; (5), e.g. a file size requirement and col. 10 lines 24-61 wherein Leung describes data characteristics such as "relevance score" (describing importance in col. 10 line 32), ownership, and file access information) indicative of whether the document should be synchronized (col. 8 lines 48-49 wherein Leung teaches information such as device and data characteristics are used for evaluating one or more storage rules. These rules specify when (e.g. "should be") data is to be stored – col. 7 lines 51-53) between the respective client (col. 8 lines 48-49; e.g. device characteristics) and the server database (108), and comparison (col. 9 line 45-48; e.g. any file above a particular size cannot be stored and col. 11 lines 8-12; e.g. data characteristics information serve as parameters to migration and placement rules and satisfying these rules) to provide efficient data access while optimizing storage resources.

It would have been obvious to a person of ordinary skill in the art at the time of the invention was made to modify Cameron and Robertson with the threshold value and comparison to provide efficient data access while optimizing storage resources as described by Leung (Abstract).

As per claim 2, same as claim arguments above and Robertson teaches:

wherein the transmitting comprises transmitting the one of the documents in the server database to the client if the respective document score exceeds a threshold value (paragraph 61, threshold value).

As per claim 3 same as claim arguments above and Leung teaches:

the threshold value based on a data storage capacity of the client. Leung does teach this limitation (page 9 lines 25-30, storage capacity threshold).

As per claim 4 same as claim arguments above and Robertson teaches:

wherein the calculating a document score for one of the documents is determined from at least one of a time of creation of the document, a number of times the document has been read, a time of last access of the document, and an author of the document (paragraph 20, terms(weighted) in document are compared to terms in user profile and paragraph 49, score is stored in the profile score field which indicates how well the terms in the document are associated with the terms in the user profile).

As per claim 5 same as claim arguments above and Robinson teaches:

wherein the calculating a document score is determined from a relationship between the respective document and another of the documents in the server database (paragraph 65, as retrieved set of previous relevant documents are stored in the user profile and used in determining document score).

As per claim 6 same as claim arguments above and Cameron teaches:

wherein the transmitting comprises transmitting one of the documents in the server database to the client …if the one of the documents is not stored in the client database (paragraph 8, 10, server documents are downloaded to the client (small device)). Cameron does not explicitly teach a document score. Robertson does teach these limitations (paragraph 49, lines 16-20 as profile score field which stores the score that indicates how well the terms in the document associated with the profile scoring file match the terms in the user profile and paragraph 20, lines 15-19, sending document to user) to deliver to a user, electronic documents that a user may find relevant. It would have been obvious to a person of ordinary skill in the art at the time of the invention was made to modify Cameron with a document to deliver to a user , electronic documents that a user may find relevant as described by Robertson (paragraph 1, lines 14-15).

As per claim 7 same as claim arguments above and Cameron teaches:

determining if the client database includes a newly created document and transmitting the newly created document to the server (paragraph 42, lines 1-5, synchronizing document additions).

As per claim 9 same as claim arguments above and Cameron teaches:

determining if the client database includes a modified document and transmitting the modified document to the server (paragraph 28, edited documents on client are transmitted to the server).

As per claim 11 same as claim arguments above and Robertson teaches:

wherein the client database includes a plurality of client documents, the method further comprising designating for deletion one of the client documents based on a document score of a complementary document in the server database (paragraph 12, deleting document from client).

As per claim 12 same as claim arguments above and Cameron teaches:

wherein the client database includes a plurality of client documents, the method further comprising removing one of the client documents from the client database… of a complementary document in the server database (paragraph 12, deleting document from client).

As per claim 13 same as claim arguments above and Cameron teaches:

further comprising resolving a conflict between the modified document in the client database and a modified document in the server database (paragraph 100, conflicting parts of documents are resolved).

As per claim 14 same as claim arguments above and Cameron teaches:

further comprising removing the designation for deletion based on a document score of the complementary document in the server database (paragraph 12, updating document).

As per claim 15 same as claim arguments above and Cameron teaches:

further comprising increasing a data storage capacity of the client by deleting the one of the client documents designated for deletion (paragraph 12, deleted documents increase the storage capacity).

As per independent claim 16 Cameron teaches:

A computer program product for use with a computer system having a server with a server database, the server database storing a plurality of documents accessible to a client (paragraph 7, lines 4-8, synchronizing documents between server and client), the computer program product comprising a non-transitory computer useable medium embodied therein program code comprising;

program code for initiating a synchronization task at one of the client, and identifying the server and the server database for synchronization (paragraph 12 and paragraph 42, as during synchronization server or small device (client) notifies the other of changes and update).

Cameron does not explicitly teach program code for calculating for a plurality of times and plurality of clients a document score for each of the documents, each document score designating an importance of a respective one of the documents to a respective one of the clients at one of the times; and program code for transmitting one of the documents in the server database to the client based on a respective document score. Robertson does teach these limitations (paragraph 20, new documents which include documents newly received to the document filtering system and/or documents currently in the system which have been modified and paragraph 49 the new documents are scored) and (paragraph 49, lines 16-20 as profile score field which stores the score that indicates how well the terms in the document associated with the profile scoring file match the terms in the user profile and paragraph 20, lines 15-19, sending document to user) to deliver to a user , electronic documents that a user may find relevant. It would have been obvious to a person of ordinary skill in the art at the time of the invention was made to modify Cameron

with program code for calculating a document score for each of the documents, the document score designating an importance of the document to a client and program code for transmitting one of the documents in the server database to the client based on a respective document score to deliver to a user , electronic documents that a user may find relevant as described by Robertson (paragraph 1, lines 14-15).

Cameron and Robertson do not explicitly teach a threshold value that indicates a document score value for a document to be synchronized, each document score indicative of whether the document should be synchronized between the respective client and the server database and comparison.

Leung does teach threshold value (col. 9 lines 42-43; e.g. a file size requirement indicating a threshold size and figure 3 as described in col. 11 lines 33-52) that indicates a document score value (col. 9 line 46; e.g. the file has to be at least a certain size as well as col. 10 lines 55-60; e.g. data characteristics information) for a document to be synchronized (col. 9 line 45-46; e.g. the file has to be at least a certain size before it can be stored), each document score (col. 9; (5), e.g. a file size requirement and col. 10 lines 24-61 wherein Leung describes data characteristics such as "relevance score" (describing importance in col. 10 line 32), ownership, and file access information) indicative of whether the document should be synchronized (col. 8 lines 48-49 wherein Leung teaches information such as device and data characteristics are used for evaluating one or more storage rules. These rules specify when (e.g. "should be") data is to be stored – col. 7 lines 51-53) between the respective client (col. 8 lines 48-49; e.g. device characteristics) and the server database (108), and comparison (col. 9 line 45-48; e.g. any file above a particular size cannot be stored and col. 11 lines 8-12; e.g. data characteristics

information serve as parameters to migration and placement rules and satisfying these rules) to provide efficient data access while optimizing storage resources. It would have been obvious to a person of ordinary skill in the art at the time of the invention was made to modify Cameron and Robertson with the threshold value and comparison to provide efficient data access while optimizing storage resources as described by Leung (Abstract).

As per claim 17 same as claim arguments above and Robertson teaches:

wherein the program code embodied in the computer useable medium further comprises program code for determining a threshold value, the one of the documents in the server database being transmitted to the client if the respective document score exceeds the threshold value (paragraph 61, threshold value).

As per claim 18 same as claim arguments above and Leung teaches:

wherein the determination of the threshold value is based on a data storage capacity of the client. Leung does teach this limitation (page 9 lines 25-30, storage capacity threshold).

As per claim 19 same as claim arguments above and Robertson teaches:

wherein the calculating a document score for one of the documents is determined from at least one of a time of creation of the document, a number of times the document has been read, a time of last access of the document, and an author of the document (paragraph 20, terms(weighted) in document are compared to terms in user profile and paragraph 49, score is stored in the profile

score field which indicates how well the terms in the document are associated with the terms in the user profile).

As per claim 20 same as claim arguments above and Robertson teaches:
wherein the calculating a document score is determined from a relationship between the respective document and another of the documents in the server database(paragraph 65, as retrieved set of previous relevant documents are stored in the user profile and used in determining document score).

Claims 8,10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cameron and Robertson and Leung as applied to claims 1,7,9 above, and further in view of US 2005/0071741 issued to Anurag Acharya et al ("Acharya").

As per claim 8 same as claim arguments above and Cameron and Robertson and Leung do not explicitly teach further comprising assigning a document score having a maximum value to the newly created document. Acharya does teach this limitation (paragraph 0043 as modifying document scores based on the age of the document which equates to a newly created document) to improve the quality of search results. It would have been obvious to a person of ordinary skill in the art at the time of the invention was made to modify Cameron and Robertson and Leung with assigning a document score having a maximum value to the newly created document to improve the quality of search results as described by Acharya (paragraph 10).

As per claim 10 same as claim arguments above and Cameron and Robertson and Leung do not explicitly teach further comprising assigning a document score having a maximum value to the modified document. Acharya does teach this limitation (paragraph 0043 as modifying document scores based on the age of the document which equates to a newly modified document) to improve the quality of search results. It would have been obvious to a person of ordinary skill in the art at the time of the invention was made to modify Cameron and Robertson and Leung with assigning a document score having a maximum value to the modified document to improve the quality of search results as described by Acharya (paragraph 10).

Response to Arguments

Applicant's arguments filed 1/29/2010 have been fully considered but they are not persuasive.

On page 8 of the remarks, Applicants disagree that the file size of Leung (or the data characteristics 132) satisfies the document score limitation of Applicant's claims.

Examiner respectfully disagrees and submits that, as part of a storage policy, Leung teaches rules that need to be satisfied in order to determine when and how data is to be stored and/or migrated. One of such rules utilizes the evaluation of a file size (col. 9 line 42) which specifies that a file has to be at least a certain size before it can be stored on the device. Therein, because this rule is used in the determination of when data is to be migrated (e.g. interpreted as synchronization in the combination of references including Cameron[1]), it is interpreted that if a

[1] Transferring, or migrating data from a device to another can be further interpreted as synchronizing a client to a server.

file size (e.g. "score", or otherwise a determined value associated with a document) is at least a certain size (i.e. compared to a threshold), then the file can be stored on a storage device (e.g. a "client"). Moreover, if the file is above a particular size (e.g. compared to a threshold which is a particular size), then the file cannot be stored on the storage device (Leung, col. 9 lines 46-48).

Thus, given the teachings of Leung, a file that meets the size threshold is to be stored on a storage device and thus the size indicates whether the document *should* be synchronized.

Nonetheless, Leung also evaluates data characteristics in satisfying a storage policy rule. Leung teaches these data characteristics to include, *inter alia*, a relevance score (col. 10 line 27 and calculations thereof on col. 14 lines 25-55) specifying importance (col. 10 line 32) of a data file as well as file access information (col. 10 line 55) including last access time (col. 10 line 59). Therein, because these rules specify when data (e.g. "whether the document should be") is to be stored (Leung, col. 7 lines 51-53) on a storage device, the satisfying of the rules teach the comparison to a threshold and accordingly whether the document should be migrated (i.e. synchronized). Furthermore, the data characteristics determined from the file include a last access time (Leung, col. 10 line 59), which according to present claim 4 reads as a document score.

In other words, once the data file characteristics (e.g. "scores") satisfy a condition of the rule (e.g. threshold and comparison), then it is to be migrated, or indicates whether the data file (document) should be synchronized.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

U.S. Patent Application 2005/0204401 filed by Stein et al. The subject matter disclosed therein pertains to the pending claims (i.e. assigning an importance to documents – most important email messages are sent to a client in selective synchronization, paragraph 0021).

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ROBERT TIMBLIN whose telephone number is (571)272-5627. The examiner can normally be reached on M-Th 8:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John R. Cottingham can be reached on 571-272-7079. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would

like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/ROBERT TIMBLIN/
Examiner, Art Unit 2167